BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
SANDRA D. KENNEDY
PAUL NEWMAN
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES DEISGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF ITS OPERATIONS THROUGHOUT THE STATE OF ARIZONA	)	DOCKET NO. E-01933A-12-0291 NOTICE OF FILING OF PREPARED DIRECT TESTIMONY OF EnerNOC, INC.

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EnerNOC, Inc. hereby provides notice of filing of the prepared Direct Testimony of Mona Tierney-Lloyd in the above-docketed proceeding.

Dated this 21st day of December 2012.

Respectfully submitted,

Lawrence V. Robertson, Jr.

Lawrence V. Robertson, Jr.
Attorney for EnerNOC, Inc.

The original and thirteen (13) copies of the foregoing will be filed this 21st day of December 2012 with:

Docket Control Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

A copy of the same served by e-mail or first class mail this same date to:

All Parties of Record

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Direct Testimony
of
Mona Tierney-Lloyd
EnerNOC, Inc.

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Q.1 Please state your name, business affiliation and business address.

A.1 My name is Mona Tierney-Lloyd. I am Director, Western Regulatory Affairs, for EnerNOC, Inc. ("EnerNOC"). My business address is P. O. Box 378, Cayucos, California 93430.

Q.2 Please describe the nature of EnerNOC's business activities, and particularly those activities which are relevant to the subject matter of this preceding.

A.2 EnerNOC is an implementer of commercial and industrial customer energy management solutions, including demand response and a suite of energy efficiency services which provide continuous savings through software and services. EnerNOC has approximately 8,500 MW of dispatchable demand response available to provide peak capacity reductions either through contractual relationships with utilities or participating in organized wholesale markets in North America, the United Kingdom, Australia and New Zealand. EnerNOC has a contractual relationship with Tucson Electric Power Company ("TEP" or "Company") to provide demand response services through TEP's Direct Load Control (DLC) Program. EnerNOC is an "implementation contractor" (IC) to TEP.

Q.3 Please describe your position responsibilities with EnerNOC.

A.3 I am a Director of Western Regulatory Affairs for EnerNOC. In my position, I am responsible for representing EnerNOC's interests before utility regulatory agencies in California, Arizona and New Mexico. Those interests include (i) protecting the value of existing contracts from changes in the regulatory environment, (ii) advocating for the approval of contracts by regulatory agencies, (iii) advocating for expanded opportunities for third-party administered programs for energy efficiency and demand response and (iv) for the incorporation of energy efficiency and demand response into resource planning proceedings.

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Q.4 Have you previously presented testimony before this Commission or regulatory commissions in other jurisdictions?

A.4 Yes. Most recently, I testified before the Arizona Corporation Commission ("ACC") in support of the Revised Implementation Plan in TEP's 2011 Energy Efficiency Implementation Plan proceeding in Docket No. E-01933A-11-0055. Previously, I have testified in Case No. U-000-84-165, participated in the ACC's Energy Efficiency Rulemaking (Docket Nos. E-00000J-08-0314 and E-00000C-09-0427), and provided public comment in ACC Open Meetings on various matters, including in support for approval of the Commercial Direct Load Control Program (Docket No. E-01933A-07-0401).

In addition, I have filed testimony in California Public Utilities Commission Docket Number R.12-03-014, the Long-Term Procurement Proceeding for all California Investor-Owned Utilities (IOUs), wherein EnerNOC testified as to the ability for demand response to provide fast-response resources to displace the need for conventional resources in a local area. I also have testified before the Minnesota Public Utilities Commission in Docket No. E-999/CI-09-1449, about the value of third-party demand response providers, and before the New Mexico Public Regulatory Commission in Case No. 09-00257 in support of preserving the existing load management programs, including EnerNOC's contract with Public Service of New Mexico (PNM).

Finally, in positions preceding my employment with EnerNOC, I have testified in various dockets in various other state proceedings.

Q.5 What is the purpose of your Direct Testimony in this proceeding?

A.5 The purpose of my Direct Testimony is to support TEP's Lost Fixed Cost Recovery (LFCR) proposal and the Energy Efficiency (EE) Resource Plan proposal discussed in the prepared Direct Testimony of TEP witnesses David Hutchens and Craig Jones.

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Q.6 Does EnerNOC have a business relationship with TEP which will be impacted by the Commission's decision in this proceeding?

A.6 Yes.

Q.7 Please describe the nature of that business relationship.

A.7 EnerNOC has a four-year contract with TEP to provide commercial load curtailment services pursuant to TEP's Commercial Direct Load Control ("DLC Program"). EnerNOC provides TEP with firm capacity curtailment services from TEP's commercial and industrial customers. More specifically, TEP pays EnerNOC for load reductions and EnerNOC pays the customers to curtail their demand as directed. In that regard, EnerNOC provides the customers with equipment that communicates real-time energy usage information to EnerNOC's network operations center (NOC), the customer and TEP. EnerNOC also provides the customers with a site analysis and a detailed energy curtailment plan. The maximum capacity of the contract with TEP is 40 megawatts (MW). The capacity can be dispatched by TEP up to 80 hours per year.

Q.8 Please briefly describe the benefits of the DLC Program to TEP and to its customers.

A.8 The DLC Program provides several benefits to both TEP and its customers, participants and non-participants alike. The DLC Program gives TEP the ability to call upon the program when its demand is approaching peak conditions. The DLC Program gives TEP the flexibility to call upon its demand resources as an alternative to procuring incremental supplies in the wholesale market or to avoid dispatching a less efficient generator. The DLC Program can also be used to provide support when unexpected transmission or generation outages occur, providing reliability support.

By dispatching the DLC Program, TEP's participating customers reduce their demand and thereby (i) reduce stress or congestion on the distribution or transmission system, (ii) obviate the need for higher-priced capacity or energy resources, and (iii)

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contribute to the reserve margin for planning purposes. The DLC Program is distributed across TEP's service territory. It doesn't require green field or brown field development permits or approvals or any new infrastructure investment.

EnerNOC provides participating customers with all of the equipment necessary to participate at no charge to the customer. In addition, EnerNOC does an analysis of the customer's premise and delivers a detailed curtailment execution plan to the customer. Customers also receive real-time access to their energy usage data on a five-minute interval basis through a web-based portal. The data access helps the customer to gain insight into how they can manage their energy usage and demand. Customers are paid for their performance. Participation in the DLC Program allows customers to control a portion of their energy costs and receive a payment for that modified behavior. In addition, reducing demand when requested by TEP provides benefits to the reliability and cost of operating the electrical system which benefits all customers.

Further, EnerNOC insulates customers from any penalties for failure to perform. If customers fail to perform during program events, EnerNOC does not penalize the customer for that failure. However, EnerNOC is subject to penalties for performance as part of its contract obligations. EnerNOC manages the performance risk associated with its contract obligations through its portfolio design. In that way, EnerNOC can protect the individual customer from penalties by managing the performance of the entire portfolio. Customers who reduce their electricity demand when directed to do so, receive a payment for those reductions. Customers, who do not perform, do not receive a payment, but they do not incur a penalty either. Therefore, participation in the DLC Program is a no-cost, no-risk opportunity to the customer. In the difficult economic climate for businesses today, customers need any edge they can get to reduce operating expenses and improve the bottom line. The DLC Program is one way for customers to reduce their overall energy costs and provide a benefit to the system.

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Q.9 Please summarize TEP's LFCR Proposal.

A.9 TEP has proposed a LFCR Mechanism that would allow TEP to recover a contribution toward its fixed costs that are lost when sales are reduced or remain flat, yet the costs to provide electricity service to customers continue to increase. In that regard, TEP has proposed that it would make an annual filing to the ACC based upon the Measurement, Evaluation and Research calculations of EE savings and the calculation of electricity sales reduction related to distributed generation (DG) associated with the Renewable Energy Standard (REST).

Q.10 Please summarize TEP's EE Resource Plan.

A.10 TEP's EE Resource Plan Proposal would include a 3-year investment plan for EE Programs, and amortize the recovery of those investments over a 4-year period for each year of the investment plan. In so doing, TEP would treat EE investments in a manner comparable to other resource investments: it would depreciate the investment over four years and earn an authorized rate of return on the investment. Recovery of the annual investments over a four-year amortization period would lessen the rate impacts on consumers.

Presently, TEP recovers its costs of implementing EE investments as an expense through its EE Implementation Plans. The Commission reviews these EE Implementation Plans, approves program budgets and authorizes TEP to recover its costs through a demand-side management surcharge (DSMS). TEP's position in this Proceeding attempts to align the manner in which EE Programs are funded with other supply-side resources. This approach solidifies the role of EE Programs into TEP's resource decisions. As indicated in TEP's Integrated Resource Plan (April 2012), EE Programs will comprise a significant component of TEP's overall resource base by 2022,

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13.36%.[1] Therefore, it makes sense to treat EE resources comparably to traditional generation resources.

Furthermore, TEP's proposed EE resource plan is highly cost-effective, which will lead to an optimal balance between future supply-side and demand-side resources.[2] The Southwest Energy Efficiency Project (SWEEP) produced a study in October 2012 called the "$20 Billion Bonanza". The study calculates the costs and benefits of EE programs throughout the southwest and mountain states (AZ, CO, NV, UT, NM and WY). In summary, $17.3 B in EE investments returned $37 B in utility system and public health benefits. Relative to Arizona, the SWEEP analysis shows the benefit to cost ratio for state programs to be 2.33.[3] That means for every dollar spent, there are 2.33 times the benefit. For the DLC Program, the benefit to cost ratio was 2.56.

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Q.11 Why does EnerNOC support TEP's LFCR and EE Resource Plan Proposals?

A.11 As a general proposition, it is paramount to the continuance of an Energy Efficiency Standard (EES) that the barriers to utility acceptance be addressed. In that regard, TEP's compliance with the EES absent a decoupling mechanism would result in revenue erosion and the potential for TEP to be unable to make a contribution toward fixed cost recovery because TEP would be selling fewer units of electricity. If TEP's costs do not reduce commensurately with its revenue, it will have erosion of its ability to earn a reasonable return on its investments. Generally, commissions recognize that energy efficiency policies have this affect of eroding revenue and that such erosion can be an obstacle to utility acceptance, even if there are sizeable benefits to consumers and society at large. It is important to have the support and commitment of the utility, which means removing economic barriers, for the success, continuity and longevity of EE Programs.

If utilities face lost revenues, reductions in earnings and the inability to earn a fair rate of return, utilities could oppose or less actively implement such measures as being

[1] TEP IRP April 2012, p. 21
[2] Id. at p. 166
[3] SWEEP's "$20 Billion Bonanza" Report, October 2012, p. xvii.

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counter to the fiduciary responsibility of managing a utility company. Thus, ignoring revenue erosion issues puts the goals of the EES at risk; and, TEP's LFCR proposal appears to represent a reasonable approach for mitigating that risk.

With specific reference to TEP, the LFCR and EE Resource Plan Proposals provide revenue, rate and program stability to TEP, its customers and its ICs. In order for programs to be successful, the commitment and support must continue from the policy development, to implementation, including cost recovery and revenue protection. TEP already has demonstrated a commitment to complying with the ACC's regulatory mandates, including the EES. TEP should have a reasonable assurance of recovery of its reasonably incurred costs and an opportunity to earn a fair rate of return.

The LFCR is a form of a decoupling mechanism. Decoupling, breaking the relationship of sales and revenues, is one method of limiting revenue erosion as retail sales shrink. The revenues can be maintained, to varying degrees, despite the fact that actual units of sales are decreasing. These regulations create strong financial incentives for the utility to make cost-effective energy efficiency their top priority, offering them a profit opportunity for alternatives to supply-side resources. Indeed, many states have adopted decoupling mechanisms. According to a recent survey by the Institute for Electric Efficiency, 14 states have electric decoupling mechanisms, including California, Oregon and Idaho.[4] In addition, five states are awaiting decisions on their proposed decoupling mechanisms.[5] One of SWEEP's program recommendations in its October 2012 Report was to "adopt decoupling or lost revenue recovery mechanisms for all IOUs, not just Arizona Public Service (APS) Company.[6]

Even with decoupling, which would increase the cost of the programs, analysis has shown that the net benefits on a societal basis of implementing the EES far outweigh the costs and that decoupling may be necessary to minimize the reduction of the return on

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[4] Institute for Electric Efficiency, "State Electric Efficiency Regulatory Frameworks", IEE Report, July 2012.
[5] Id.
[6] SWEEP's "$20 Billion Bonanza" Report, October 2012, p. 156.

equity (ROE).[7] There are several other compelling arguments in favor of decoupling mechanisms, including:

- They tend to remove the utility incentive to promote load growth, and thus growth in expensive supply-side resources.
- They do not require complex and sometimes contentious measurements of EE program load reductions.
- They tend to expand the range of EE activities that the utility engages in, fostering innovation, economic growth, and local employment.

TEP's LFCR Proposal is a partial decoupling proposal as it provides an opportunity for TEP to recover revenues associated with lost sales resulting from implementation of the EES and the REST, but does not provide for revenue recovery associated with weather or economic variability. Additionally, TEP is placing a cap on the increase in the LFCR from year-to-year of 2%. That seems to be a very reasonable limit in upward rate pressure that customers could experience in any given year relative to a prior year.

The EE Resource Plan provides a way for TEP to finance its EE investments in a manner comparable to other resource investments, to moderate the rate impact for customers and to provide program funding continuity for ICs. Significant disruptions in program funding and continuity can completely undermine the EES. There are repercussions that flow from such disruption.

ICs have invested in providing services in Tucson. There are resource dedication commitments that occur. Marketing plans and sales execution, contract management, information technology investments, regulatory support, etc. The costs for creating a new program in a new market are expensive. If revenues evaporate because funding has evaporated, then ICs have investment but with no return. The same is true for customers who have made a corporate commitment to participate with certain expectations,

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[7] Lawrence Berkeley National Laboratory's "Preliminary Analysis of the Energy Efficiency Standard (EES) and Decoupling for APS", May 24, 2010, pp. 36-37.

including revenue, upon which they can no longer plan. Regaining customer trust after such an experience isn't easily achieved. Also, companies may decide that the business environment is too risky and deploy their resources elsewhere making it difficult to attract new investment capital. The repercussions from such disruptions are very difficult to overcome.

Q.12 What is the status of EnerNOC's contract with TEP?

A.12 The enrollment of customers into EnerNOC's contract with TEP for purposes of participating in the DLC Program has been suspended due to the lack of approval of TEP's Revised 2011 EE Implementation Plan.

Q.13 Why was the DLC Program suspended?

A.13 The Program was suspended due to lack of funding. More specifically, TEP filed for approval of its 2011 EE Implementation Plan in January 2011. TEP's proposal initially was contested by several parties, followed by TEP reaching a settlement with all parties, except ACC Staff. The matter went to hearing in July 2012. Administrative Law Judge Jane L. Rodda issued a recommended Opinion and Order which is now before the ACC for a final decision. Without program funding, TEP concluded that it cannot afford to continue its EE program implementation and, thus, suspended further enrollment in EE programs, including EnerNOC's contract. EnerNOC's contract with TEP expires in 2014.

As a result of the events just described, EnerNOC has lost the opportunity to realize the full contract value due to the suspension of enrollment in 2012 continuing into 2013.

Q.14 What are the implications of the suspension of the EE Programs?

A.14 The suspension has created an environment of uncertainty as to the degree of regulatory support for the EES. It has halted the investment of companies like EnerNOC in the

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Arizona market. It has also created uncertainty in the customer community as to whether they can count on the programs for the future. EE program implementation relies upon customer willingness to modify their electricity consumption behavior by retrofitting or replacing inefficient equipment, and changing behavior in response to pricing or incentives. But, it requires customers to make a commitment to do something differently than they were doing before. If programs are going to start and stop or come and go, customers won't make those behavioral changes because there isn't a perceived commensurate regulatory commitment to the program's continuation.

Customers embrace EE for many different reasons. It may be social responsibility. It may be simple economics. The less the customer has to spend on electricity, the more it can put into its primary business and its employees. Without EE, there is only one direction for the cost of providing service to go: up. It will go up because more resources will need to be acquired to accommodate growing demand.

During public comment at the hearing in Tucson in July 2012, many consumers and local contractors expressed their support for the continuation of the EE programs, even if it meant an increase in their rates. Many customers told tales of investing in EE and DG measures that resulted in zero electricity costs. Many contractors told stories of the rise of their businesses when they become EE contractors and the subsequent loss of business when the funding evaporated. It was very clear that the interruption in funding had an effect on local jobs in Tucson.

As an IC, EnerNOC has made a significant investment in developing the business relationship with TEP and its customers. EnerNOC's ability to fulfill its contract with TEP has been significantly reduced, including reduced revenues to EnerNOC relative to its investment. EnerNOC has a four-year contract for 40 MW that expires in 2014 and EnerNOC has only been able to enroll about 1/3 of its total contract commitment to date.

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In that regard, another recommendation in SWEEP's Report was to "commit to timely approval of Energy Efficiency Implementation Plans".[8]

For all of these reasons, EnerNOC supports TEP's ability to have stability in its funding mechanisms that translate into stable EE programs and stable regulatory support.

Q.15 Does that complete your Direct Testimony?

A.15 Yes.

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[8] SWEEP's "$20 Billion Bonanza" Report, October 2012, p. 156.

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